

CAT. NO. 32-1200B

## OWNER'S MANUAL

Please read before using this equipment

# STEREO MIXING CONSOLE

 **REALISTIC**<sup>®</sup>

Your **REALISTIC** Stereo Mixing Console is a sophisticated control center for all your mixing needs — recording, live performances, playback from multiple sources such as disco or in your home stereo.

The "state of the art" circuitry in this mixer assures you of quiet, dependable performance in home or for professional use.

You will find almost limitless combinations of this unit's many features. And the more you use the Mixer, the more combinations you will find.

## FEATURES

- **Pan Pots** are used to permit total stereo control of three microphone inputs.
- **Two pairs of stereo phono inputs** for your turntables using either two magnetic cartridges or two ceramic cartridges or a combination of both.
- **Tape input** for a stereo tape deck or other high level source
- **Auxiliary input** for compact disc player, HiFi VCR, another stereo tape deck or any high level source
- **Tape output** for either tape recording or monitoring
- **Seven GLIDE-PATH® level controls** for fingertip adjustment of sound mixing and fading
- **A cue function** that allows you to listen to and check a phono, tape, or aux signal, using headphones, before putting it "on the air"
- **Dual VU meters** for monitoring output levels
- **Two slide switches** for selecting inputs (phono 1 or tape, phono 2 or aux)
- **Mono/stereo switch** to send mono signals to both output channels
- **Headphone jack** for listening to the cue function, or monitoring the main output.

## SPECIFICATIONS

### Input Impedance:

Mic 1,2 and 3 .....	33 k ohms
Phono Mag 1 and 2 .....	50 k ohms
Phono Cera 1 and 2 .....	1 M ohms
Tape In .....	100 k ohms
Aux .....	100 k ohms

### Output Level:

Tape Out .....	550 mV
Main Out .....	550 mV

### Sensitivity for Rated Output:

Mic 1,2 and 3 .....	1.0 mV
Phono Mag 1 and 2 .....	2.0 mV
Phono Cera 1 and 2 .....	220 mV
Tape/AUX .....	80 mV

**NOTE:** MASTER VOLUME and all controls are at 70% position.

Frequency Response: ..... 10 — 30 kHz  
S/N Ratio

Mic .....	73 dB
Phono Mag 1 and 2 .....	75 dB
Phono Cera 1 and 2 .....	62 dB
Tape/AUX .....	78 dB

T.H.D. at rated output: ..... 0.2 %

**NOTE:** MASTER VOLUME and all controls are at 70% position.

Phono Eq. Response: ..... RIAA  $\pm$  2dB  
Channel Separation at 1 kHz: ..... 56 dB  
Monitor Output, at 8 ohms load: ..... 35 mV  
AUX. Level Control = 70% position  
MONITOR LEVEL Control = MAX., AUX 80mV  
input

### Maximum Input Level:

Mic 1,2 and 3 .....	250 mV
Phono Mag 1 and 2 .....	250 mV
Phono Cera 1 and 2 ..	more than 3.0 V
Tape/AUX .....	Infinitive (at Master volume with Max. position, rated output, T.H.D. 1.0% point)

### Power Requirements:

AC 120V, 60 Hz for U.S.A./Canada  
AC 220/240V, 50 Hz for Europe  
AC 240V, 50 Hz for Australia

For your protection, we urge you to record the serial number of this unit in the space provided. You'll find the serial number on the back panel of the unit.

Serial Number \_\_\_\_\_

### WARNING:

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lighting flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

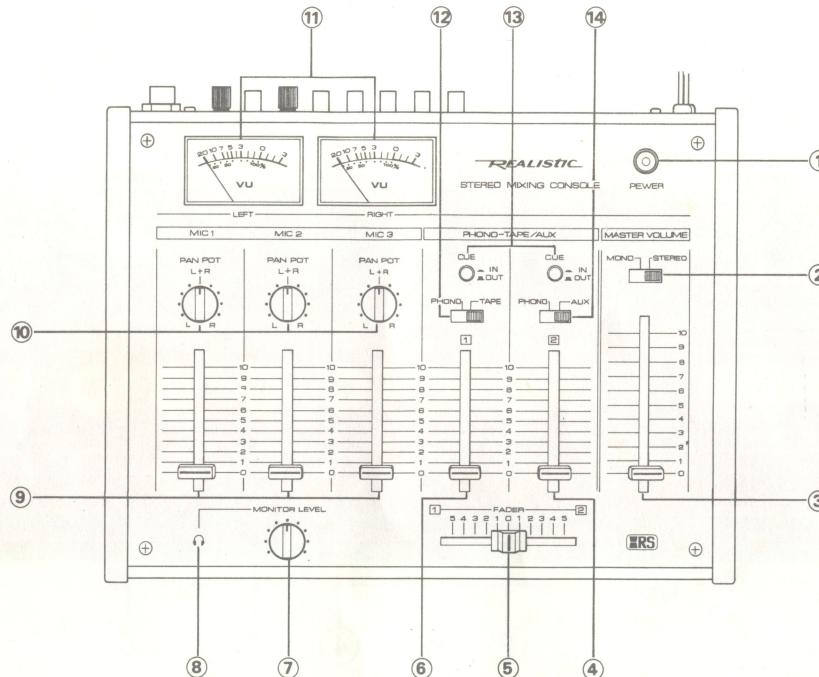


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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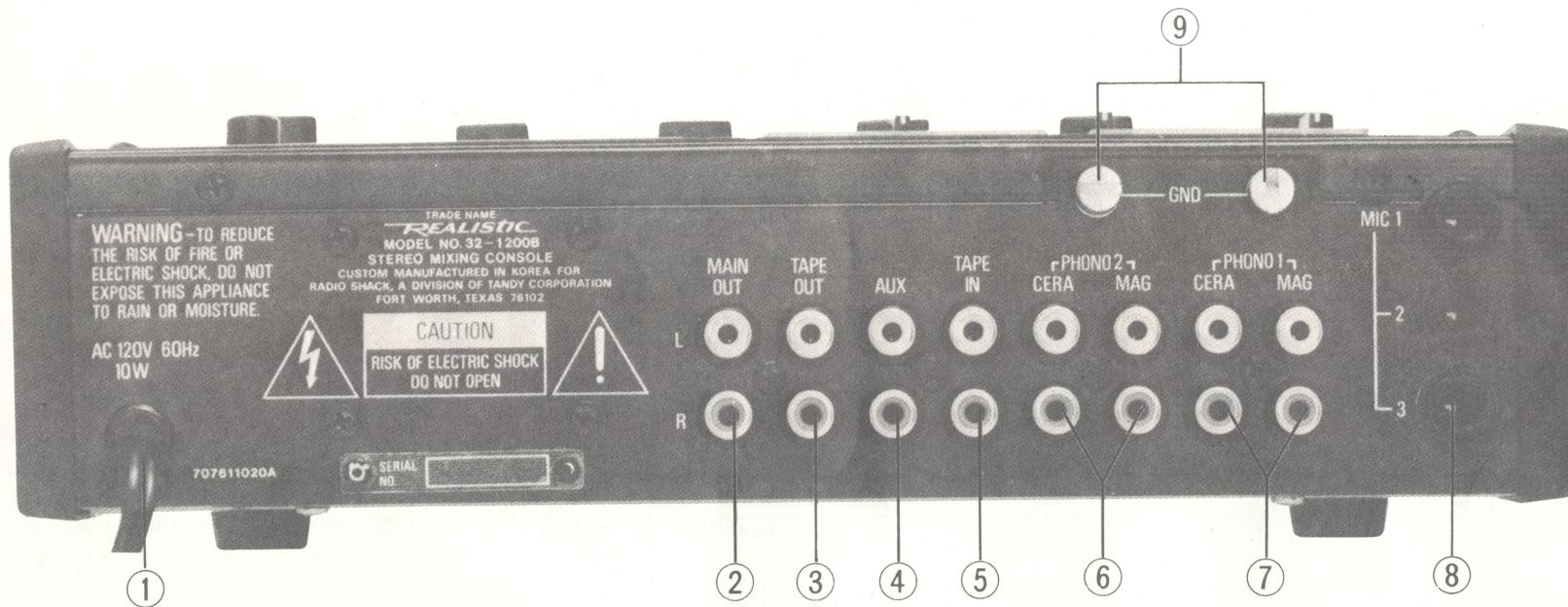
# CONTROLS AND FUNCTIONS



- ① **POWER Switch:**  
Turns the Mixer's power on and off.
- ② **MONO/STEREO Switch:**  
When pressed, it combines the left and right channels, and allows you send a mono input to both outputs or send stereo input to mono amplifier.
- ③ **MASTER VOLUME Control:**  
Adjusts the output level of all the sources simultaneously.
- ④ **PHONO 2/AUX Level Control:**  
Controls the volume of the input selected with the PHONO 2/AUX Switch.
- ⑤ **FADER Control:**  
Lets you make a smooth transition from the PHONO 1/TAPE input to the PHONO 2/AUX input, using only one control. In the center position the two inputs are blended equally.

- ⑥ **PHONO 1/TAPE Level Control:**  
Controls the volume of the input selected with the PHONO 1/TAPE Switch.
- ⑦ **MONITOR LEVEL Control:**  
Adjusts the headphone volume level from the CUE or MAIN OUTput.
- ⑧ **Headphone Jack:**  
For listening to the MAIN OUTput or CUE, using stereo or mono headphones.
- ⑨ **Microphone Level Controls:**  
Allows you to adjust the level of each microphone independently (0 is off, and 10 is maximum).
- ⑩ **PAN POT Controls:**  
Adjusts each microphone's apparent position in the "stereo image" from left to right, or anywhere in between.
- ⑪ **LEFT and RIGHT VU meters:**  
Indicates the output signal levels.
- ⑫ **PHONO 1/TAPE Switch:**  
Selects an input source, either turntable 1 or tape deck.
- ⑬ **CUE Switches:**  
Permits the monitoring of the signal from PHONO 1/TAPE or PHONO 2/AUX (using headphones), without sending it to the MAIN OUTput.
- ⑭ **PHONO 2/AUX Switch:**  
Selects an input source; either turntable 2 or the auxiliary input.

## REAR PANEL CONNECTIONS



Before making any connections, be sure the POWER Switch is off and the AC Power Cord is unplugged.

To prevent hum and other noise pick-up, use low capacitance, shielded cables for all connections between the STEREO MIXING CONSOLE and other components.

**① AC Power Cord:**

Plug into a standard AC outlet.

**② MAIN OUT Jacks:**

Connect to the aux input of your amplifier/receiver or power amplifier.

**③ TAPE OUT Jacks:**

Connect to the aux or line input of your tape deck to record signals processed through the Mixer.

**④ AUX Jacks:**

Connect to the output from a high level source such as compact disc player, HiFi VCR, tape deck, tuner, etc. This input is added to the Mixer by setting the PHONO 2/AUX Switch to the AUX position.

**⑤ TAPE IN Jack:**

Connect to the output jacks of your tape deck. This input is activated when the PHONO 1/TAPE Switch is in the TAPE position.

**⑥ PHONO 2 Jacks:**

Connect the output of a turntable to these jacks. If the turntable has a magnetic cartridge, connect the output to MAG; if it has a ceramic cartridge, connect the output to CERA. To use this input, set the PHONO 2/AUX Switch to PHONO.

**⑦ PHONO 1 Jacks:**

Same as PHONO 2 Jacks, except that this input is activated by setting the PHONO 1/TAPE Switch to the PHONO position.

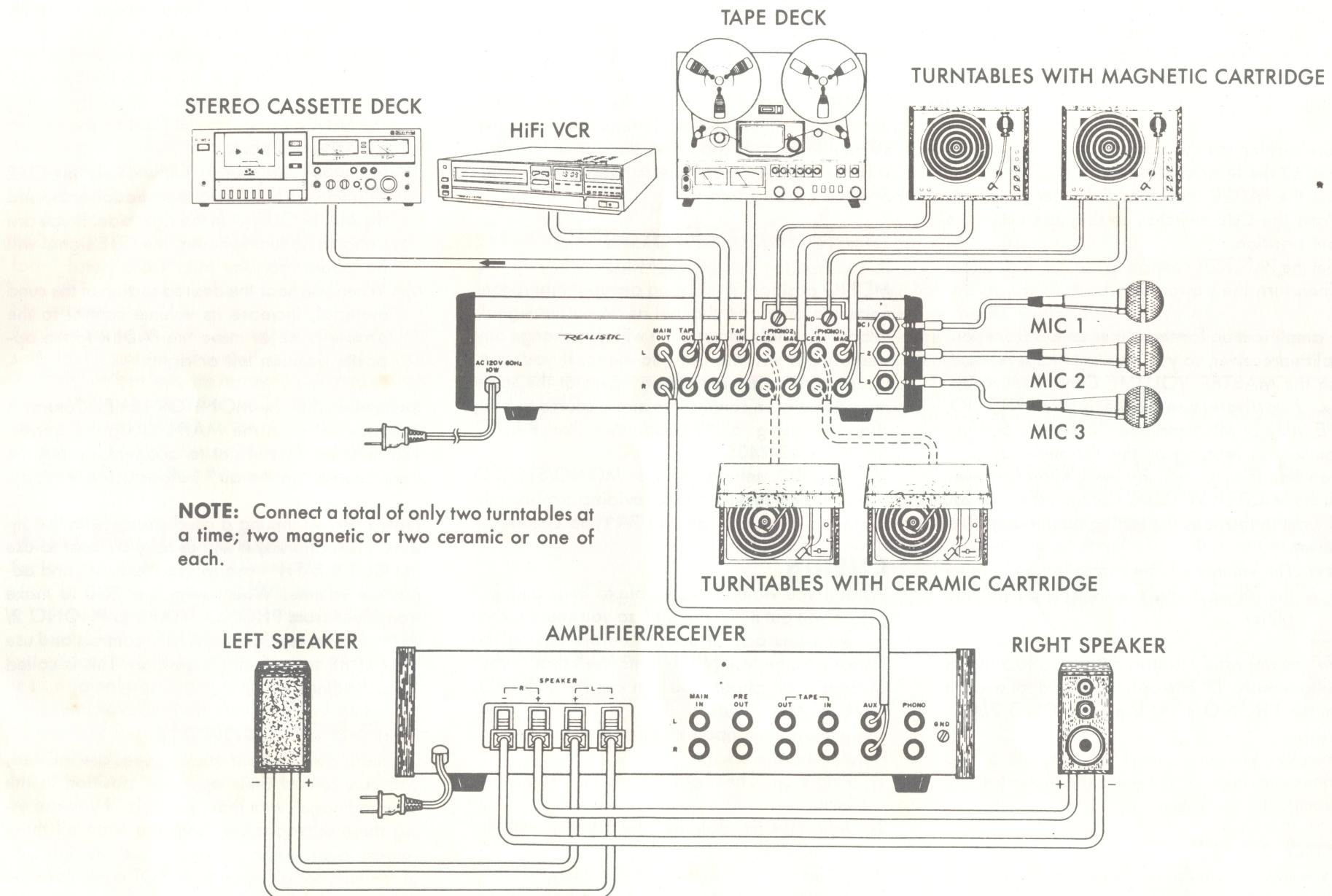
**⑧ MIC 1/2/3 Jacks:**

Connect high-quality microphones with 1/4" (6.3 mm) plug. Use either high or low impedance microphones.

**⑨ GND Screws:**

Connect the ground wires (usually black or green) from your magnetic cartridge turntables to these screws.

## TYPICAL SYSTEM CONNECTION



# OPERATION

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After becoming familiar with the controls of the Stereo Mixing Console and making the connections as described in the Rear Panel Connections section of this manual, you're ready to start mixing.

Before turning on the power:

- Set all the lever controls to 0.
- Set the FADER control to 0 (center position).
- Press the CUE switches so they are set in the out position.
- Set the PAN POT controls to the L + R position.
- Then turn the power on.

The amplification for the Mixer comes from your amplifier/receiver, so you must set that level next. With the MASTER VOLUME Control set to approx. 7, activate one of the inputs (PHONO, TAPE, AUX or MIC) and adjust its level to produce about a "0" reading on the VU-meter(s).

If you find that the volume level is too low even with the MASTER VOLUME Control set to 10, you will want to increase the setting on the amplifier/receiver.

**Note:** The volume will be controlled entirely by the Mixer if you are using a power amplifier.

Now you are ready to start mixing up to 5 inputs simultaneously (3 microphones, and one each from the PHONO 1/TAPE and PHONO 2/AUX inputs).

Remember, you can connect two magnetic or two ceramic cartridge turntables to the Mixer (or one of each). It's up to you.

## Tired ears?

As you mix, be careful not to get into the habit of always increasing volume levels to achieve balance.

You can bring high levels down just as easily as bringing low levels up. Try to keep the independent level controls in the middle position (3 to 8), and adjust the overall volume with the MASTER VOLUME Control as well as the volume control of your amplifier/receiver. Listening at excessive volume levels will soon give you "tired ears" in a hurry, and you won't be as pleased with your finished product later.

## Mono Inputs/Outputs

If you set the MONO/STEREO switch to the MONO position, it will send an input that is connected to only one channel as an output signal, to both channels. However, it will also change any stereo input you are using to mono. If you want to use both stereo and mono inputs at the same time, it is best to connect the mono source to both channels using a "Y" adapter like RADIO SHACK's 42-2435.

The MONO setting of the MONO/STEREO Switch is best reserved for providing a mono mix for monaural amps, as in a PA type system.

## CUEing

What if you wanted to be able to hear an input before you put it "on the air", so you could locate an exact passage or section before mixing the source into the MAIN OUTput? Well that's what CUEing is all about. You can cue the PHONO, TAPE or AUX inputs.

The microphone inputs cannot be cued.

Here's how it works:

- 1) Plug a set of headphones into the headphone jack.
- 2) Adjust the headphone listening level with the MONITOR LEVEL control.
- 3) Select the input to be cued using the PHONO 1/TAPE or PHONO 2/AUX Switch, and press

the appropriate CUE Button so that it is in the "on" (down) position.

- 4) Make sure the input you have selected is "off" in the MAIN OUTput, by setting the appropriate GLIDE-PATH® control to 0, or by moving the FADER Control to the position away from the selected input.
- 5) Input the cued source. You will hear the CUE signal in the left side of the headphones, and the MAIN OUTput in the right side. If you are using mono headphones, the CUE signal will be louder than the MAIN OUTput.
- 6) When you hear the desired section of the cued material, increase its volume control to the proper level (or move the FADER to the opposite position left or right).

Remember that the MONITOR LEVEL Control is independent from the MAIN OUTput Controls. You must be careful not to accidentally put the cued source "on the air" before you are ready.

**Note:** When mixing a cued source with live inputs (microphones) it will usually be best to use the GLIDE-PATH® controls to "fade in" and adjust the volume. When using the CUE to make transitions from PHONO 1/TAPE to PHONO 2/AUX, pre-set the GLIDE-PATH® controls and use the FADER to make the transition. This is called "cross fading."

## PAN POT Controls

No matter where your microphones are located, you can control their apparent position in the "stereo image" with these controls. If you are using three microphones, and you want all three sources to appear to be coming from the right side of the mix, set all three PAN POT controls to the R position (or L if you want all three to appear

## MAINTENANCE

to be on the left side of the mix). With these controls you can "separate" a soloist or narrator from the rest of the group "electronically."

### FADER Control

This control is used to make a smooth transition between the PHONO 1/TAPE and the PHONO 2/AUX input. Instead of moving two GLIDE-PATH® controls to accomplish this, you can use just the FADER. It is an almost fool-proof way to "cross fade" from one source to another.

For example:

Begin with the FADER Control set to 5 on the left side. In this position, source 1 is "on" and source 2 is "off". When you are ready to switch to source 2 (you will probably want to CUE the source first), slowly move the FADER to the right until you reach 5 on the right side. It's so simple! Remember, you must pre-set the volume levels of source 1 and 2.

### Voice/Music/Talkover

For proper blending of voice and music, you'll want to start with a microphone level that gives a VU reading of -5 to -3. When talking over music, the level control for the music source should be reduced as you begin to speak and returned to its original position during natural pauses and when you have finished speaking. Reduce the music level just enough for you to hear yourself in the headphones or speakers (over the music). Don't forget to move the level control for the microphone to 0, when it is not in use.

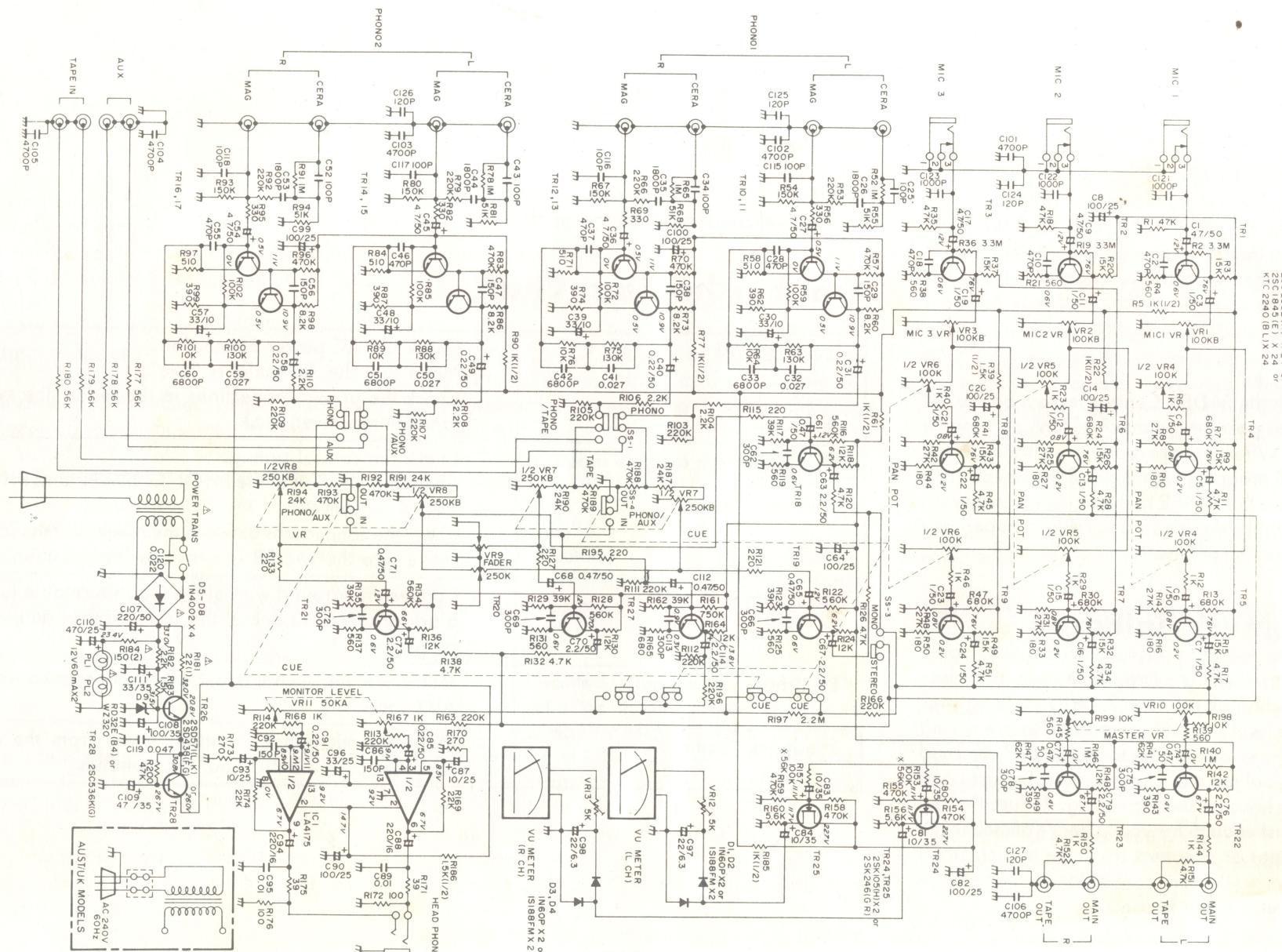
Only the finest parts and craftsmanship have been used in your Stereo Mixing Console. It should require very little maintenance. If you do have problems, refer to the Troubleshooting chart below for possible solutions.

**CAUTION:** Only a qualified service technician should perform repairs on this unit!

### Troubleshooting Chart

Nothing works.	<ul style="list-style-type: none"><li>— Check the AC power connection.</li><li>— Make sure the AC outlet is "live".</li><li>— Check the power connections to the rest of the system. (amplifier/receiver, etc.)</li></ul>
No signal from a single input	<ul style="list-style-type: none"><li>— Check the control setting.</li><li>— Check the position of the PHONO 1/TAPE and PHONO 2/AUX switches.</li><li>— Check the connections between the Mixer and the sources.</li><li>— Make sure the FADER is in the desired position.</li></ul>
Hum from PHONO	<ul style="list-style-type: none"><li>— Connect the ground wire of the inputs turntable (usually black or green) to one of the GND Screws on the back of the unit.</li></ul>
Hum from other inputs	<ul style="list-style-type: none"><li>— Make sure there is not a low level input connected to the AUX jacks.</li></ul>
Feedback "squeals"	<ul style="list-style-type: none"><li>— Move the microphones farther away from the output speakers or use directional microphones.</li></ul>

## SCHEMATIC DIAGRAM



#### NOTE

(1) Ss-1 ~ Ss-5 FUNCTION SELECTOR SWITCH:

(2) ALL RESISTANCE VALUES ARE INDICATED IN "OHM" ( $K=10^3$  OHM,  $M=10^6$  OHM) AC120V 60Hz (U.S.A. CANADIAN MODELS)

(3) ALL CAPACITANCE VALUES ARE INDICATED IN  $\mu$  F ( $10^{-6}$  FARAD), M=10 OHM.  
AC120V 60Hz (U.S.A. CANADIAN MODELS)  
AC220V/240V 50Hz (EUROPEAN MODELS)

CAUTION  
SINCE THE COMPONENTS MARKED BY A ARE CRITICAL  
FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

NOTE X BOTH RESISTORS, R153 & R157, ARE USED TO GAIN-ADJUST THE VU METERS

Schematic subject to change without notice. For most accurate schematic (and parts) contact Radio Shack, National Parts Dept., Fort Worth, TX 76101.

## MIXING NOTES

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#### RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 1 year from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

*We Service What We Sell*

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